REMARKS

This amendment is made in response to the Examiner's Official Action mailed November 28, 2003 in which claims 1-15 were pending. Claims 1-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sciammarella et al (US Patent 6,052,110 - hereinafter referred to as Scia), and further in view of DeLorme et al (US Patent 6,321,158 - hereinafter referred to as DeLorme).

By the present amendments, claims 4, 9, 13 and 15 have been cancelled, and have been represented as independent claims 16-19.

Response to the Examiner's 103 Rejection

The Examiner rejected Claims 1-15 under USC 103(a) as being unpatentable over Scia and in further view of DeLorme. Applicant respectfully traverses.

As said in response to the first Action, the present invention relates to systems and methods for providing a zooming feature for an image on a screen, and is particularly applicable to touch-screen and stylus input type devices.

In accordance with the present invention, the point on the screen indicated by e.g. a stylus is set as the centre point of the zoom action. Furthermore, zooming continues until the stylus is removed from the screen. In an especially preferred feature, the zoom centre moves to track the stylus as the stylus is moved across the screen in contact with the screen.

The present invention provides an efficient and user-friendly zooming method that provides the user with a simple and easily controlled zoom function. The user need only select the type of zoom to perform, e.g. by touching a zoom-in or zoom-out icon, and then point e.g. the stylus at the desired center point of

the zoom and retain the stylus in contact with the screen until the desired amount of zoom has been achieved.

Scia also relates to a zoom control. However, Scia provides a different control to that of the present invention without the advantages of the present invention.

In Scia, a user chooses a general zoom command without identifying the type of zoom required (i.e. without indicating whether a zoom-in action or a zoom-out action is desired). The user then indicates to a first point on the screen with a cursor, and the computer draws a circle on the screen so that the indicated point is on the circumference of the circle. A user must next draw a straight line from the first point to a second point. If the line lies within the circle, then a zoom-in function is activated, whilst if the line extends out from the circle, then a zoom-out function is activated. The length of the line drawn by the user determines the speed at which the zoom function proceeds.

There is no suggestion in Scia that the zoom function should perform a zoom from a point indicated by the user. Indeed, in the disclosed zoom of Figs. 6a and 6b and of Figs. 7a and 7b, the actual centre of the zoom is shown in both cases as being at the centre of the graphical universe, whereas the zoom circle and line are in each case in the upper corner of the screen.

Overall, in Scia, a user must click on a reference point, wait for and respond to the representation of a circle on the screen, and must then draw a line to indicate whether a zoom-in or zoom-out is required and to set the zoom speed. When the zoom occurs, the circle will remain on the screen (possibly obscuring a part of the image that is to be seem and at least being a distraction in the user), and the zoom is centred on the graphical universe rather than on a point indicated by the user.

In the present invention, in contrast, once a user has chosen the appropriate zoom function, they merely place e.g. the stylus on the screen at the desired zoom centre, and the zoom function actuates from the chosen centre to

provide a clean zoomed image until the stylus is removed from the screen. This can for example give a view similar to "flying into" the image on the screen.

The present zoom function is neither disclosed nor suggested by Scia, and, indeed, Scia teaches away from the present invention, in that the cursor position must be moved either within or without the circle to define the type of zoom and must be moved a necessary distance within or without of the circle in accordance with the desired zoom speed. The cursor position therefore is constrained by the desired zoom type and zoom speed, and so cannot also be used to define the zoom centre.

DeLorme does not assist in providing the features missing from the Scia patent. DeLorme relates to a system in which a user can create a customised route plan on a desktop computer from a large number of files, and can then load the plan into a handheld computer. Thus, DeLorme seeks to provide good route plans whilst overcoming the memory limitations of the handheld computer.

The Examiner has pointed to the use in DeLorme of a touch-sensitive screen. DeLorme does use a touch-sensitive screen, but this does not assist in providing the features of the current zoom action that are missing from Scia. DeLorme only briefly mentions zooming, and the zooming in DeLorme is of a basic type.

There would be no incentive to combine the teachings of Scia and DeLorme, but if the two documents were combined, then one could achieve no more than the use of the Scia circle and straight line actions to provide a zoom in DeLorme, which would presumably be a more complex way of zooming than merely pressing a zoom-in or zoom-out icon on the DeLorme PDA.

Absent the teachings of the present invention, there is no suggestion or incentive to provide a zooming action in which e.g. a stylus indicates the

centre of the zoom, and zooming continues until the stylus is removed from the screen.

In view of the forgoing, Applicant submits that Claims 1, 6, 11, 12 and 14 are clearly patentably distinguished from Scia and DeLorme, and are therefore allowable under 35 USC 103(a) over Scia and DeLorme.

With respect to Claims 2, 3, 5, 7, 8, and 10, Applicant submits that these claims are allowable in that they variously depend from Claims 1, 6, 11, 12 and 14.

With regard to Claims 16 to 19, these Claims are clearly distinguished from Scia and DeLorme for the same reasons as Claims 1, 6, 11, 12 and 14. Furthermore, Claims 16 to 19 are additionally distinguished over Scia and DeLorme in that they require the center of the zoom to move with the movement of e.g. the stylus across the screen. This feature would be impossible to provide in the Scia zoom system, as the Scia cursor must move across the screen to define a straight line that indicates whether a zoom-in or a zoom-out function is required and also sets the zoom speed. Movement of the cursor to provide this information prevents the cursor movement from being able to control the zoom centre in a desired manner during the zoom, as any movement of the cursor would affect whether zoom-in or zoom-out occurs and also the speed of the zoom.

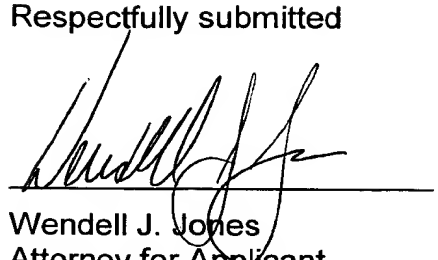
Although the Examiner has noted with respect to original claim 4 that DeLorme mentions the recentering of the map display, this relates to e.g. recentering on Points of Interest (POIs), and does not relate to a zoom centre or to dynamically changing a zoom centre in accordance with the movement of a stylus during the operation of an actual zoom.

In view of the amendments and discussions set forth herein, Applicant respectfully submits that the grounds for the Examiner's rejections have been overcome. Accordingly, Applicant respectfully submits that Claims 1-3, 5-8,

10-12, 14 and 16-19 as amended should now be found to be all in the condition for allowance.

Date: February 26, 2004

Respectfully submitted



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